

Virginia City Hybrid Energy Center
Response to Data Request
Bruce Buckheit, Member, Virginia Air Pollution Control Board

Question (Page No. 18):

The record concerning the NO_x rate in terms of lb/mmbtu seems reasonably complete. Please address the impact, if any, in terms of tons per year using the Dominion proposed fuel rather than nominal Virginia coal.

Response:

Dominion is making the assumption that the commenter is asking for a comparison in NO_x emissions between washed coal and the proposed fuel mix. NO_x emissions are grouped in two categories, fuel NO_x and thermal NO_x. Fuel NO_x comes from the combustion of nitrogen in the fuel. Virginia coals have relatively low nitrogen content, and washing of the coal will have no effect on changing the nitrogen content of the coal. Thermal NO_x is produced by heating the nitrogen in the combustion air. Using a higher BTU-content coal will tend to increase bed temperatures in the boiler, which in turn, increases thermal NO_x. This has been Dominion's experience at North Branch Power Station in West Virginia.